

REMARKS

Introduction

Receipt of the non-final Office Action mailed April 10, 2008 is acknowledged. The claims presented for reconsideration are claims 1-20.

Claim 1 is amended to correct a typographical error in the spelling of the word "surface."

Claims 6 and 11 are amended to amend the phrase "an inner side" to "the inner side" as suggested by the Examiner.

No new matter is introduced with this amendment and response. Entry of this amendment and favorable reconsideration are earnestly solicited.

Rejection of Claims 6 and 11 Under 35 U.S.C. §112

Claims 6 and 11 stand rejected under 35 U.S.C. §112 due to insufficient antecedent basis. Specifically, the Examiner believes that the claims should read "the inner side" instead of "an inner side." With the present Amendment and Response, Claims 6 and 11 are amended to amend the phrase "an inner side" to "the inner side" as suggested by the Examiner. Applicant respectfully requests withdrawal of this rejection.

Rejection of Claims 1-9 and 13-20 Under 35 U.S.C. §103(a)

Claims 1-9 and 13-20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Krallman et al. (CA 2,292,983). The Examiner contends that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the casing of Smith with the casing of Krallmann et al. because the casing of Smith allegedly has the ability to be stored indefinitely without the formation of molds and these casings would benefit from the ability to retain elevated consistency in diameter during the filling process and reliable machinability of the case of Krallman et al.

The claimed invention relates to antimicrobial, tubular, single- or multilayer polymer-based plastics foodstuff casings comprising polyamide or polyamide layers (see

claim 1). The casings are premoistened so as to be ready-to-fill and comprise an alkyl para-hydroxybenzoate and/or a salt thereof as antimicrobial constituent (see claim 1). The antimicrobial constituent is applied to the inner or to the inner and outer surface of the casing (see claim 1). As a result, the casings are impermeable for alkyl para-hydroxybenzoates. The polyamide casings or polyamide layers absorb up to about 6% by weight of water (see claim 1).

Applicant respectfully traverses this rejection on the grounds that one of ordinary skill in the art would not have even attempted to combine these references because one of ordinary skill in the art would not have been motivated to employ the para-hydroxybenzoid acid esters found in the cellulose casings of Smith in the polymer plastics casings of Krallmann. As explained below, the casings have completely different properties, in particular with respect to water vapor permeability, and are intended for use with different types of food.

Smith discloses "ready-to-stuff" food casings consisting of a material which takes up at least 40 % by weight and preferably at least 55 % by weight of water, based on the dry weight of the casing (see p. 8, line 20 - p. 9, line 6). These food casings may contain a plasticizer which is preferably a polyol, such as glycerin or propylene glycol (see p. 8, line 20 - p. 9, line 6). The polyols also show antimicrobial properties (see p. 8, line 11).

The casings disclosed by Smith may be preserved with an effective amount of a high pH active antimycotic agent such as an alkyl ester of para-hydroxy-benzoic acid (see p. 13, lines 4 - 14). "High pH active" means that the antimycotic agent is effective throughout the pH range of 5 to 9 (see p. 9, lines 18-20). Polyols and antimycotic agents, such as para-hydroxy-benzoic acid alkyl esters are low molecular weight compounds that one of ordinary skill would appreciate is capable of migrating throughout the entire cross-section of the casing wall. The food casings themselves are formed from cellulose, cellulose ethers, cellulose esters, collagen, polyvinyl alcohol, amylose or high amylose starches (see p. 17, line 22 - p. 18, line 1). The food casing may be fibrous reinforced (see p. 18, lines 5-7). Preferred food casings are made from regenerated cellulose and are fiber-reinforced (see p. 18, lines 1 - 8). In all examples, such fibrous casings based on regenerated cellulose are employed (see Examples I-III on pages 20-24). Furthermore,

the casings of Smith are intended for meat and sausage products such as bologna, salami, turkey rolls, hams, (i.e. for raw products) which require a high water vapor permeability (see p. 11, first full paragraph).

As admitted by the Examiner, the teaching of Smith does not extend to casings made up of polymer plastics and, accordingly, does not provide any teaching regarding how such casings could be preserved against the growth of microorganisms. Krallmann, however, teaches ready-to-fill sausage casings based on polymer plastics. "Ready-to-fill" means that the casings are premoisturized with water up to the saturation limit of the polymer plastics material (p. 3, lines 26-33). The casings of Krallmann contain at least three-layers having a polyamide layer as the innermost layer and as the outermost layer and a water barrier layer between these layers (p. 3, lines 17-25). The casings disclosed by Krallman exhibit a low water-vapor permeability as a result of their design and, therefore, are not suitable for raw sausages (e.g., salami or bologna). The casings recited in claim 1, however, are suitable for raw sausages. The casings disclosed by Krallmann would have been understood by one of ordinary skill at the time of the invention to be suitable, instead, for scalded or cooked meat emulsion sausages and, thus, one of ordinary skill in the art would not have been motivated to combine the casing with the casing disclosed by Smith to arrive at the casing recited in claim 1.

Furthermore, alkyl esters of para-hydroxy-benzoic acid are not taught or even suggested in Krallman. These esters are apparently not regarded as "conventional fungicides" for casings based on polymer plastics. One of ordinary skill in the art would not have been motivated to employ the para-hydroxy-benzoid acid esters, as used in the cellulose casings of Smith, in the polymer plastics casings of Krallmann. As a result, the casings of Smith and Krallmann have completely different properties, particularly with respect to water vapor permeability, and are intended for different types of sausages as noted above.

With respect to water vapor permeability, one of ordinary skill in the art appreciates the fact that casings based on polymer plastics can take up only a small percentage of water, if any. Polyamides are known as polymers which can absorb a relatively high amount of water, but still less than about 10 % by weight, depending on

their structure. Typically, polyamides can absorb up to about 6 % by weight of water, as recited in present claim 1. Thus, Applicant again submits that one of ordinary skill in the art would not have been motivated or prompted to combine these references as suggested by the Examiner for at least the reason that the casings of Smith and Krallmann have completely different physical properties which, in turn, would discourage one of ordinary skill to attempt to combine these disclosures to arrive at the food casing of claim 1.

A *prima facie* case of obviousness has not been established for the reasons articulated above. As such, Applicant respectfully requests that the Examiner withdraw the rejection of claims 1-9 and 13-20.

Rejection of claims 10-12 Under 35 U.S.C § 103(a)

Claims 10, 11 and 12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Krallmann et al. in further view of Quinones (US Patent No. 6,183,826). The Examiner contends it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of producing casings of Smith and Krallman et al. with the method involving spray of Quinones because it provides an economical and fast way to lubricate and to promote high speed shirring.

Claims 10-12 are not obvious under 35 U.S.C. §103(a) for at least the reasons set forth above, namely, that one of ordinary skill in the art would not have been motivated or prompted to combine Smith and Krallmann as suggested by the Examiner.

Specifically, claims 10-11 are not obvious under 35 U.S.C. §103(a) because the combined disclosures of Smith and Quinones fail to teach or even suggest each and every aspect of these claims. The Examiner admits that Smith is silent regarding spraying the solution containing the antimycotic agent on to the foodstuff casing. Quinones does not fulfill the deficiencies of Smith and Krallman.

Quinones discloses fibrous and non-fibrous cellulosic casings which can take up a large amount of water, as do the casings of Smith (see col. 7, lines 59-65). Additives, such as plasticizers and antimycotics, are common in the cellulosic casing (see col. 7, line 65). The tubular casing can be shirred (see col. 7, line 65-67). During the shirring operation, a shirring solution may be sprayed onto the inner surface (see col. 7, line 67 –

col. 8, line 5). This shirring solution may contain an anti-pleat lock agent, a lubricant, a surfactant, water and/or a humectant (see col. 7, line 67 – col. 8, line 5). Quinones fails to teach or suggest that an antimycotic agent could be applied to the inner surface during the shirring step. Furthermore, Quinones does not teach or suggest a process of producing a “polymer-based plastics foodstuff casing” much less a foodstuff casing wherein the antimicrobial constituent is applied to the inner or to the inner and outer surface of the casing as recited in claim 1 from which claims 10-11 depend. Thus, a *prima facie* case of obviousness has not been established because one of ordinary skill in the art not have been motivated or prompted to combine Smith and Krallman and, furthermore, the combination of Smith, Krallman and Quinones fail to teach or even suggest each and every aspect of claims 10-11.

Claim 12 recites a process of producing a casing in which an easy-peel agent is applied to the inner surface of the tubular “polymer-based plastics” casing together with the antimicrobial agent. None of the references cited by the Examiner disclose a process for the production of a tubular, polymer-based plastics foodstuff casing wherein the alkyl para-hydroxybenzoate and/or its salt is applied onto the casing via spraying much less include at least one component which makes the casing easy to peel. Quinones does not cure this deficiency and even fails to teach or even suggest that an antimycotic agent could be applied to the inner surface during the shirring step.

For the reasons set forth above, Applicant respectfully submits that the combination of Smith, Krallman and Quinones cannot render obvious the presently claimed process. As such, Applicant respectfully requests that the Examiner withdraw the rejection of claims 10-12.

Appl. No. 10/521,146
Amdt. dated June 24, 2008
Response to Office action of April 10, 2008

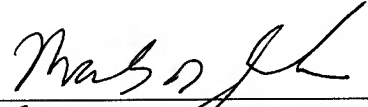
CONCLUSION

Applicant believes the current claims are in condition for allowance. However, any comments or questions concerning the application can be directed to the undersigned at the telephone number given below.

Applicant does not believe any fees are due at this time, however, the Commissioner is authorized to charge any deficiency in fees or credit any overpayments to Deposit Account No. 09-0528 (Docket #: P179 1210.US).

Respectfully submitted,

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